

Work Order ID 136816

136816

Page 1

September 09, 2015 3:20:04 PM

Item ID: D119-796-151 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: FWD Crosstube Installation with Step (no hardware)
 Start Date: 9/9/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 9/23/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: SH Date: 20150909 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D119-796-151	D

110	Document Control	0.00							
110									
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels as per PPP D119-796-151 chg 003								

MLJ JAN 14 2016

120	Pick Kit	0.00							
120	Packaging								
Packaging	Memo	0.00							
Packaging									

x-tube 135564

DAS
41
9-89
16-1-13

130	Crosstubes	0.00							
130									
Crosstubes	Memo	0.01							
Crosstubes	1- Install step and clamp with the proper position per dwg D119-796-151								

DAS
41
9-89
16-1-13

Torque all clamps to 50 IN-LBS max.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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140	QC5- Inspect part completeness to step on W/O	0.00				1			DAS 38 9-89
140									
QC	Memo	0.00							
Quality Control	***RE-CHECK TORCQUE ON CLAMP AS PER DWG.***								JAN 14 2016
150	Packaging	0.00				1			DAS 41 9-89
150									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D119-796-151								16-1-14
	For final assembly								
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.00							
Quality Control									MLJ JAN 14 2016

MLJ JAN 14 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube</td><td style="width: 15%;">Cross tube</td><td style="width: 15%;">Water Jet</td><td style="width: 15%;">Engineering</td></tr> <tr> <td>Machining</td><td>Small Fab</td><td>Prod. Eng. Coord.</td><td>Quality</td></tr> <tr> <td>Thermoforming</td><td>Finishing</td><td>Rec/Store/Packaging</td><td>Other</td></tr> <tr> <td>Large Fab</td><td>Composite</td><td>Supplier</td><td></td></tr> </table>						Skid-tube	Cross tube	Water Jet	Engineering	Machining	Small Fab	Prod. Eng. Coord.	Quality	Thermoforming	Finishing	Rec/Store/Packaging	Other	Large Fab	Composite	Supplier																																																																							
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Picklist Print

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Page 1

Work Order ID: 136816

136816

Parent Item: D119-796-151

D119-796-151

Parent Item Name: FWD Crosstube Installation with Step (no hardware)

Start Date: 9/9/2015

Required Date: 9/23/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 14.09.09 NEW ISSUE DD VERF:JLM IPP
REV:B 14.11.19 AS PER REV.C DD VERF:JLM IPP REV:C
14.12.09 AS PER REV.PC6 DD VERF:JLM IPP REV:D 15-02-11
AS PER REV D JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D119-796-141		Manufactured	No				Each	0.0000		1		DAS 41 9-89	16-1-13
D119-796-141					135564				**	1			
FWD Crosstube Installation without Step (no hardware)													
D5123-3		Manufactured	No				Each	81.0000		4		DAS 41 9-89	16-1-13
D5123-3									**	4			
Clamp Cushion					137701					4			
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				LG055				63					
					133959			22					
					135511			41					
				lg55				18					
					126747			12					
					127133			6					
D5149-041		Manufactured	No				Each	1.0000		2		DAS 41 9-89	16-1-13
D5149-041									**	2			
Fwd Step Base Assembly					135576					2			
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				LG051				1					
					130000			1					

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							

Picklist Print

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Work Order ID: 136816

136816

Parent Item: D119-796-151

D119-796-151

Parent Item Name: FWD Crosstube Installation with Step (no hardware)

Start Date: 9/9/2015

Required Date: 9/23/2015

Start Qty: 1.00

Required Qty: 1.00

MS21920-22

Purchased

No

Each

84.0000

4

DAS

MS21920-22

41
~~9-89~~

16-1-13

Clamp

133483

4

Location

Loc Qty

Loc Code

LG050

84

M128636

3

M130822

2

M132045

4

M132275

4

M132550

21

M132854

50

DQA: _____ Date: _____

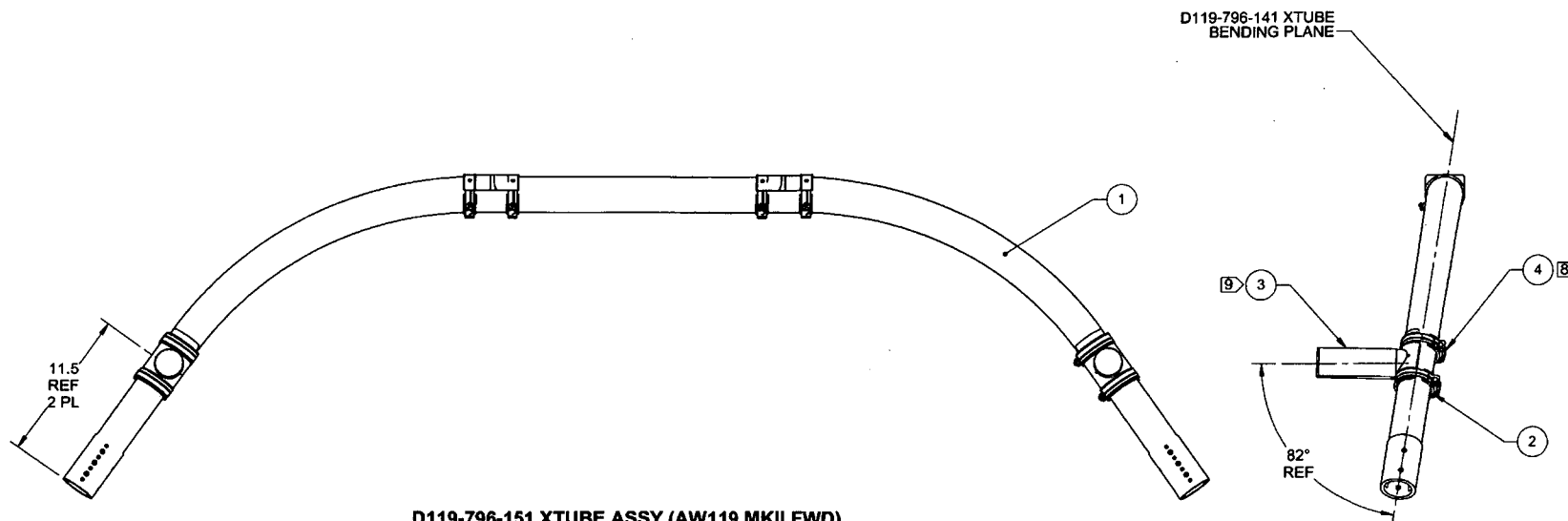
**WORK ORDER NON-CONFORMANCE / UPDATE**

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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ITEM	QTY	P/N	DESCRIPTION
	X	D119-796-151	XTUBE ASSY (AW119 MKII FWD)
1	1	D119-796-141	XTUBE ASSY (AW119 MKII FWD)
2	4	D5123-3	CUSHION
3	2	D5149-041	FWD STEP ASSEMBLY
4	4	MS21920-22	CLAMP



D119-796-151 XTUBE ASSY (AW119 MKII FWD)

RELEASED

2015 FEB 09

ECN 15-516 4

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 METHOD 6.5
- 7) WEIGHT: 19.87 lbs
- 8) TORQUE MS21920-22 CLAMPS TO 50 IN-LBS MAX
- 9) LOCATE STEP USING POST FITTING ON CROSSTUBE

D	D5123-3 CLAMP CUSHION WAS D5123-9 CLAMP CUSHION. MS21920-22 WAS -24.	AP	15.01.19
C	RE-DESIGN STEP INSTALLATION	DB	14.11.24
B	D5149-043 WAS D5149-041, AN4C6A WAS AN4C10A, D2274 WAS D5153-1	AP	14.11.04
A	NEW ISSUE	AP	14.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	DB	DRAWING NO.	REV. D
MFG. APPR.	JLM	D119-796-151	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII FWD)	NTS
DATE	15.01.19	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESSED CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED